

University News

OCTOBER 23, 1986

Re: 1.00



S.K. Verma, Director, Central Institute of English & Foreign Languages, inaugurating the Regional Seminar on National for University Libraries held at the Osmania University, Hyderabad. Others seen in the picture are (from L to R) Prof. T.K.S. Iyengar, Librarian, IISc, Bangalore and Mr. N.B. Inamdar, Librarian, Osmania University.

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UNIVERSITY NEWS

Examinations Sans Malpractices

S. P. Sylvestre*

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Editor :
SUTINDER SINGH

The system of examination we have today has stayed for too long a time and has acquired a lot of anomalies in its long journey. The government, educational experts, teachers and those who aspire for high academic values have realized that the foundation on which the present system of examination is built, is giving way and it is necessary to restructure and strengthen it so that it might be saved from a total collapse. In a recent communication to Chief Ministers seeking their co-operation in implementing the New Education Policy, the Prime Minister, Mr. Rajiv Gandhi, has expressed his concern over the sorry state of examinations: "in many places examinations had ceased to be an indicator of worth," (Times of India, Ahmedabad Edition, 15 Aug. 1986). One of the major drawbacks of the present system of examination is its inability to curb malpractices. The system of evaluation proposed in the New Education Policy aims at innovations and experiments in the conduct of examinations to eliminate copying and other unfair means.

Limitations of the Present System

(i) **Reliability and Validity** : "Every examination's results are assessments of the candidates who sit for it, but every examination is set for a purpose: to find out how much the candidates know about a certain topic, to test their application of knowledge to some practical task, to select them for higher education, to evaluate their fitness to be granted a degree, and so forth: . . ." (Thyne : Principles of Examining). It is difficult to say whether an examination is able to fulfil all the objectives, mentioned above. Reliability of the grades and scores awarded, and the validity of examinations of Boards and Universities have steadily eroded. Those who score high grades and marks in Secondary/Higher Secondary/University examinations make a mockery of the entire system of examinations when they fail to qualify in an entrance test for higher education or competitive examination for employment. Examinations conducted by agencies like banks, insurance companies, public sector organisations and many private sector establishments to select their prospective employees, the entrance test for admission to Higher Education, tests of UGC and CSIR for the selection of Junior Research Fellowships and the proposed test of the UGC for the selection of lecturers in colleges and universities in India are the direct pointers to the unreliability of the results of examinations of State Boards and Universities.

(ii) **Content-Based Examination** : A content-based examination helps students to resort to learning by rote and copying in the examinations. In a content-based examination questions are predictable and so the examination fails to test the candidates' knowledge and its application. Therefore, the content-based examination system which is prevalent in our country today needs to be replaced by a skill-based examination system to make it meaningful and purposeful. A skill-based examination by increasing the unpredictability of questions will foil the attempts of students to learn by rote or copy in examinations.

(iii) **Large Number of Students** : The factor that defeats a system of

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fair examination is the alarming number of students in certain disciplines. For example, the discipline of Commerce attracts 'crowds' these days. All those who register at the First Year Degree level in Commerce Colleges/Faculties after their +2 are not interested in going beyond graduation. Besides, it is not advisable to admit all the B.Com. degree holders to post-graduate courses.

Suggestions

Disciplines like Commerce where a large number of students join degree classes can restrict the number of students taking examinations by offering options like the following:

(i) **Registration Certificate** : Many students are interested only in certificates because they want to continue in their family professions or start something of their own. It is of no use testing such students on par with those who hope to go for higher education. Therefore, a certificate of registration could be issued to such students three years after the registration for B.Com. Attendance need not be compulsory and there should not any examinations for such students.

(ii) **Certificate of Passing** : Students who appear for an examination three years after registration can be given certificates without grades or class. Attendance need not be compulsory.

(iii) **Examination with Grades/Class**: Students who want to get grades or class in an examination could be given special coaching and the attendance is kept compulsory. Admission to this stream can be restricted through an entrance test.

While the first and the second categories of students are not to be allowed to join postgraduate courses, there will be considerably less number of students in the third category paving the way for a healthy atmosphere for the management of academic affairs and administration of examinations.

Such a streaming will help the authorities to eliminate large number of students from examinations and this will make it possible to give a fair deal to those who take the examination. Only really motivated students will join the 'grade-linked' stream. This kind of streaming and evaluation will prevent students from resorting to walkouts under one pretext or the other. A strict watch on attendance, periodical internal evaluation and 'skill-based' examination will facilitate a fair conduct of examinations and help to 'purge the canker' of malpractices in examinations. In the light of the New Education Policy it would be worth considering measures which will help to eliminate copying and other unfair means in examinations. □

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE

PILANI (RAJASTHAN) 333 031

Faculty Recruitment Advertisement No. FR/1/86

Applications are invited for faculty positions at various levels in the disciplines of : chemical, civil, electrical & electronics and mechanical engineering; computer science, instrumentation, pharmacy, management; biosciences, chemistry, economics, mathematics, physics; science & technology development, museum studies, engineering technology and english. Candidates must possess normally a Ph.D. However in case of professional disciplines master's or bachelor's degree holders will also be considered. Necessary details are available in a free booklet entitled "Introducing BITS to Prospective Faculty, 1986" which can be obtained on request by sending a stamped (Rs. 2.50) self-addressed envelope (30 x 25 cm.) marked FR/1/86. Those who have already applied against Advt. FR/1/86 issued in May '86 need not apply again.

October 1986.

**A.N. Bhargava
REGISTRAR**

Bhai Gurdas Library Guru Nanak Dev University

Kirpal Singh*

Introduction

The University Library established in March, 1970 with a nucleus of 10,000 books has steadily built up its collection to more than 2 lac documents. The management of the library is carried through a duly constituted library committee. The Dean, Academic Affairs and Students' Welfare is the Chairman of the committee and University Librarian is its Secretary. Besides some others, all Heads of the University Teaching and Research Departments, who are at least in Reader's Grade, are the members of the committee.

Library Building and Facilities

During the early period of its establishment, the library remained housed in various distant places and buildings. It found its real home with the completion of the central library building whose inauguration synchronised with the 10th Foundation Day of the University on 24th November, 1979. The library is a unique architectural masterpiece in design and structure. Its outward shape is like a truncated inverted pyramid with a plinth area of 1,50,000 sq. ft. The circumference of the ground floor is 144' x 144' which gradually goes on increasing as we ascend the building reaching to 210' x 210' at the top.

The entire library building has a seating capacity for 1,000 readers at a time and a stacking capacity to accommodate 5 lac books. The library has built-in spaces for all the essential facilities such as microfilm readers, photostat machine room, carrels for research scholars, rare books room, art gallery and staff reading room, etc. The library is equipped with modern attractive, comfortable and functional furniture. The manuscripts are displayed in well built show cases and newspaper stands have been arranged in a separate corner. The library remains open on all the days of the year except on two national holidays, viz., 26th January and 15th August. Working hours observed are from 7.30 a.m. to 7.00 p.m. in Summer (May and June); and 9.30 a.m. to 7.00 p.m. from July to April. On Sundays and other

holidays the library remains open from 9.30. a.m. to 5.00 p.m.

Finances

Besides other miscellaneous provisions to meet odd contingencies, the following recurring provisions for reading material have been made in the library budget for 1986-87:

1. Purchase of New Books	Rs. 7,00,000
2. Purchase of Rare Books and Manuscripts	Rs. 20,000
3. Subscription to Current Periodicals	Rs. 10,00,000
4. Purchase of Back sets of journals and other serial publications	Rs. 2,00,000

Upto March, 1986, a sum of Rs. 1,14,21,560.17 was spent for purchase of new books; a sum of Rs. 2,30,305.16 was spent for the purchase of Manuscripts and Rare Books; a sum of Rs. 26,89,085.60 spent on Back sets of journals; and a sum of Rs. 82,12,815.74 for subscription to current periodicals. The total amount spent for purchase of books and journals etc. upto March, 1986 was Rs. 2,25,53,767.67 which included a sum of Rs. 46,70,221.71 as UGC grant.

Library Organisation

For functional convenience, the library has been organised into various sections such as Acquisition, Technical, Circulation, Textbooks, Rare Books and Manuscripts, Periodicals, Reprographic, Binding, Stack Area and Library Administrative Office. Upto March, 1986 the library possessed 2,35,462 books. The library also possesses a good number of valuable rare books and manuscripts, microfilms, and transparencies. The acquired documents have been technically processed for use. For classification, 17th edition of Dewey Decimal Classification is used and a classified catalogue on cards is available in the library.

Some of the selected books are enlisted in the serial "Select Book List" of which twentytwo issues have already been published; while some other ready-for-use books are displayed in the "New Arrival" Corner for a wider publicity. Rest of the processed books are put on the open shelves for an easy access without any formality or hindrance between the readers and the books. The library is proud of its reference books, such

**Librarian, Bhai Gurdas Library, Guru Nanak Dev University, Amritsar.*

as bibliographies, encyclopaedias and dictionaries. Other reference books include famous atlases, gazetteers, Statistical tables, Annuals and Directories.

The Circulation Section working as the hub of the library has been performing satisfactory service. The total number of registered members on 31 March 1986 was 2977 and 31691 books were issued to the members during 1985-86. The library subscribes to 1140 journals, majority of which are foreign published. In addition to currently subscribed journals, quite a good number of backsets of journals have been acquired in different subjects.

Library proposes to have a full-fledged Reprographic Section. To begin with, a panaprint photo-copying machine was provided to meet reprographic demands. Now an automatic photo-copier Rank Xerox 3107 has also been acquired and installed. With this addition, photo-copying services to the members have been expedited. Two microfilm readers are also available in the library and a few number of microfilms, microfiches and transparencies are in the possession of the library.

Research scholars and university teachers of other universities in the Regional Library co-operation group, may get issued a limited number of books only if they produce a letter of authority either from the Vice-Chancellor/Registrar or Librarian of the parent University. The letter of authority should specifically convey that the parent University will be responsible for any kind of loss/damage of books by the borrower. The books in that case will be issued on Inter-Library Loan basis in the name of the authority which issues such letter.

Library has on its programme a proposal to set up Guru Nanak Art Corner. For this purpose, some paintings have already been acquired.

The library organises Book Exhibitions to synchronise with various occasions. Bibliographies and Classified Catalogues of the holdings of the library in different subjects are brought out from time to time. So far, more than two dozen such publications have been released and all these have proved very useful and popular among our library users and outside libraries.

From March 1981 a UGC Corner has been separately established inside the library to promote better use of books received from the University Grants Commission. A number of steps have been taken for wide publicity and quick dissemination of books and infor-

matory documents received from the UGC. A classified and annotated catalogue in bound form in respect of all the UGC books in the library is available. It lists about 200 books. New additions to this section are notified through the Select Book List.

Departmental Libraries

In addition to the Central Library, there are Departmental Libraries in the departments of Biology, Chemistry, Electronics Technology, Physics, Mathematics and U.S.I.C. (combined), Punjab School of Economics and Department of Business Management, and Commerce (combined), Guru Nanak Studies, Guru Ram Das Post-Graduate School of Planning, History, Laws, Library Science, Political Science, Psychology, Sociology, English, School of Punjabi Studies, All India Services Pre-Examination Training Centre for Scheduled Castes and Scheduled Tribes and Subramania Bharati Chair.

Books and journals are centrally acquired by the Main Library where they are processed, i.e. accessioned, classified, catalogued and further prepared for use. Books which are of constant use to the students and faculty are transferred to the respective departmental libraries. Similarly, the current journals are also transferred to the departmental libraries after they are displayed for some time in the main library. A Semi-Professional is posted in each departmental library. These are kept open from 9.00 a.m. to 5.00 p.m. on all working days.

Study Centre

Guru Nanak Dev University has established a Study Centre at Jalandhar for the benefit of all the students in general and college students in particular. The Centre established with the assistance of the University Grants Commission, has been located in densely populated area, so that students residing in the city may easily reach there. University provides approximately a sum of Rs. 1 lac annually for the Centre. Multiple copies of textbooks have been kept there for the use of the students. A sum of Rs. 2,26,871.20 was spent upto March, 1986 for purchase of books at the Study Centre, Jalandhar. The number of books available at Study Centre, Jalandhar is 7,348.

Medical Library

The University has established a Medical Library in Guru Teg Bahadur Hospital, Amritsar for use by the Doctors and Postgraduate students there. Books and journals in Medical Sciences have been provided in the library. The Library has proved quite useful to the hospital staff and medical students. [

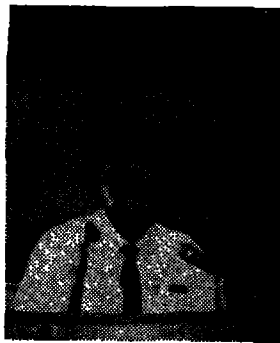
National Policy on University Libraries

Association of Indian Universities (AIU) had constituted in 1984 a committee to suggest a National Policy on University Libraries. The draft policy was published in 1st June 1986 issue of *University News*. Osmania University, Hyderabad, organised a regional seminar of Librarians working in South Indian Universities on 29-30 September, 1986, to discuss the Draft Policy. We highly appreciate the initiative taken by the Osmania University and have pleasure in publishing the following report of the Seminar.

A regional seminar of the Librarians working in South Indian Universities was organised at Hyderabad on September 29 and 30, 1986 to discuss the draft report of AIU Committee on National Policy on University Libraries. Prof. S.K. Verma, Director, Central Institute of English and Foreign Languages, Hyderabad, who inaugurated the seminar congratulated AIU for proposing a National Policy on University Libraries and thereby inspiring librarians all over the country. He observed that university libraries had a vital role to play in providing the setting in which the explorers can move with confidence in the direction of their cherished goals. He emphasised the need for preparation of subject bibliographies, union catalogues and dissertation abstracts. He further said that the time had come when we should take the computer into our libraries and make retrieval of information a simpler process. He observed that university libraries were our national assets which should function both as power houses and service centres—generating problems and facilitating their solutions. Prof. Verma hoped the deliberations at the seminar would lead to a clearly worked out plan of action.

Prof. T. S. K. Iyengar, Librarian of the Indian Institute of Sci-

ence, Bangalore presided over the inaugural function. Mr. N. B. Inamdar, University Librarian, Osmania University, directed the seminar which was attended by 54 professionals representing 18 Universities/Deemed to be Universities and 5 Research Libraries. 18 papers were presented and discussed



Prof. T.K.S. Iyengar, delivering the Presidential Address at the inaugural function.

at the Seminar. The following recommendations emerged as a result of the two day deliberations:

I. Objectives

The objectives of such a policy shall be:

- (a) To build up the collections of the libraries in so compre-

hensive and complete manner as to be enable them to be responsive to the scholarly needs of the academicians in the country.

- (b) To husband the limited financial resources so that a mighty reservoir of knowledge and information required by the country is built up and the limited funds are thus made to go a long way.
- (c) To weave into a network the university, research and other libraries in the country so that the barriers of time, space and language that exist between the documents on the one hand and their users on the other are eliminated.
- (d) And finally to improve the quality of services of the libraries and make them intellectual aids of scholars and the researchers by evolving and continually revising and updating standards for library practices and performances.

The policy shall cover the following components:

II. Status of the Library

1. The library, being the heart of the University, the intellectual arena of the teachers and the taught, the workshop of the scholars, it shall be given the status of Department of Instruction in the University. As a corollary to this the professional staff managing the library shall be given the faculty status. A provision in the act establishing the University Library shall be incorporated to this effect.

2. Libraries need to be adequately and even liberally staffed in as much as the professional staff have to deal with such sensitive thing as needs of the human mind as opposed to that of the brawn.

3. The staffing pattern at the professional level shall correspond to the structure available in the teaching departments.

4. The staff shall, in addition to taking care of their technical task, also undertake responsibilities of conducting user education programmes, advanced courses in training research workers, documentation activities, etc.

5. Promotional and continuing educational facilities as are available to the teaching staff should also be liberally available to the library staff.

III. Collection Building

It is noticed that libraries are not acquiring even one per cent of the total world output of reading material at present. This is so even with regard to the learned journals. This alone should motivate educationists for more percentage on library budget.

In order to see that as many of the books published in the world as would have relevance for our instructional and research programmes are acquired, it is suggested that the policy of establishing advanced centres, be widened and all Universities be encouraged to establish an advanced Centre, each specialising in one area or one subject, care however be taken to see that there is no duplication in such centres.

Newer Media

Universities should also be encouraged in enriching their audio, video, audio-visual and microform collection. Universities may also be advised, wherever feasible to go in for microforms particularly in respect of journals with a view to avoiding duplication and thereby reducing costs both in acquisition and space.

Government Documents

The need for stroing government documents, both Central and State in University Libraries has been a long felt need. The situation has not improved. It is recommended that the State and Central Governments shall regard all University Libraries as Depository Centres for their publications.

Needs of the physically handicapped

The seminar stressed that attention should be paid to the needs of the physically handicapped students particularly, the blind. It strongly recommends that special provision be made for the building up of collections of brail books, talking books and audio-visual aids as required by the physically handicapped students.

IV. Financing

The sominar feels that the recommendations with regard to the financing of libraries made by both the Radhakrishnan and Kothari Commissions are several decades old. Taking into consideration the phenomenal rise in the number of users of university libraries, number of books and journals being published as mentioned earlier and their price rise, the seminar recommends the suggestion made by the Karnatak State Universities Review Committee in 1980-81 (Chairman: Dr K.N. Raj) be adopted for implementation. The Committee has recommended that 20-25% of the total budget of the Universities may be set apart for the operation grant for university libraries. This recommendation, if implemented, may enable the libraries to operate at the research and teaching level.

The seminar further recommends that the annual increase in the budgetary provision of University

Libraries shall be the order of 20 to 25% in keeping with general price rise.

V. Relations between the University Libraries and College Libraries

The seminar feels that in order to vitalise the services of the college libraries, there should be closer links between the University Library and the college libraries. In the absence of any such close relations, college libraries have tended to become stagnant pools with the result the teachers in the colleges and the libraries in the mofussil centres have been denied the opportunities to keep themselves abreast of the latest development in the various fields that help to solve their problems. There should be in the University Library a Documentation Cell which would take care of information requirements of all teachers in colleges, etc.

VI. Modernization

In order to speed up and make more efficient library operation and services, the seminar recommends that modern equipments like Micro-computers, Mini-computers be introduced into the University Library to take care of the routine repetitive jobs and free the professional staff for attending to more serious affairs like the compilation of bibliographies, SDI services etc.

VII. Resource Sharing

In view of the financial constraints and other allied problems facing libraries, the seminar stresses the need for resource sharing. This programme which should be blessed by the UGC would comprise increased inter-library loans promoted by union catalogues, installation of telex and facsimile services, reduction of postal rates, creation of storage

centres for low use materials, equipped with microfilming and reprographic facilities, etc.

VIII. Space

In respect of providing space to the library, the seminar feels that no ceiling on the maximum number of titles that a library should acquire be stipulated in view of the fact that most of our libraries have small collection as compared to those in advanced countries. The seminar also feels that seating accommodation should be provided at the rate of 30% for the potential users. It strongly feels that Librarians should be involved in the planning process of University Library buildings.

IX. Open University

The national policy has to cover an entirely new phase that has come up very recently. This is the Open University system, whose clientele are varied in nature and belong to different levels of sophistication. This would mean stocking in multiple number and catering and servicing audio-visual aids and special materials such as V.C.R., Tape Recorders, etc. and providing seating accommodation for the numerous users.

X. Miscellaneous

- (a) **Essential Services** : In order to enable the university community to have unhindered and continuous access to the document resources, libraries need to be kept open for longer hours and on Sundays and public holidays. In order that this may be done efficiently, the library services may be classified as "essential services" for the purposes of providing ac-

commodation to the staff on the campus.

- (b) The seminar noted with concern that at present 30% of Librarians posts are vacant in different Universities. This affects the working and quality of library services. It therefore urges on AIU to incorporate a provision in policy document that makes obligatory for Universities to appoint Librarians from the very beginning.
- (c) **Loss of Books** : The seminar recognizes the fact that a library, with either open or close access, is bound to encounter the problems of loss of books. The recommendations of the Ranganathan

Committee and the ILA regarding the writing off of normal loss of books, though implemented in some major Universities, have not yet been implemented in the colleges. The seminar, therefore, strongly recommends that norms suggested by the Ranganathan Committee, ILA, etc. should straightaway be accepted and implemented by all colleges.

- (d) **Admitting Literati** : In view of the fact that the Library movement has not yet developed fully, it is suggested that the doors of University library and college libraries be kept open to the literati, particularly to the eminent writers. □

CORRESPONDENCE COURSE IN EVALUATION METHODOLOGY AND EXAMINATIONS

Applications are invited from College/University teachers for admission to Correspondence Course in Evaluation Methodology and Examinations at Basic Level, Intermediate Level and Advanced Level/Special Professional Course. The duration of each of the three courses is six months. A personal 'Contact Programme' for three days is planned for each of the three courses. Universities/Institutions sponsoring candidates can meet the registration/course fees from out of unassigned grants by UGC.

Request for prospectus and application form accompanied by a crossed Indian Postal Order for Rs. 10 drawn in favour of the Secretary, Association of Indian Universities and a self addressed stamped envelope (Re. 1) should reach the undersigned. Last date for receipt of applications is extended to 15th November, 1986 for sponsored and non-sponsored candidates.

Project Director (Examinations)
ASSOCIATION OF INDIAN UNIVERSITIES
AIU House, 16 Kotla Marg
New Delhi-110002

CALENDAR OF EVENTS

Proposed Dates of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/Officer to be contacted
November 9-10, 1986	National Conference on Distance Education	Topics proposed to be covered are: (i) Concept of Distance Education; (ii) Forms of Distance Education; (iii) Course Designing and Preparations; (iv) Role of Media in Distance Education; (v) Financing of Distance Education; (vi) Student Support Services; (vii) Evaluation Methodology.	Association of Indian Universities, New Delhi; Indira Gandhi National Open University, New Delhi; and Gujarat University, Ahmedabad.	Prof. B. N. Koul, Indira Gandhi National Open University, K-76, Hauz Khas, New Delhi. Mr. M.M. Ansari, Project Director (Research), Association of Indian Universities, 16 Kotla Marg, New Delhi
November 10-20, 1986	Workshop on Thesaurus in Information Retrieval	To provide practical orientation to the principles and techniques of Thesauric construction and use.	Indian Association of Special Libraries and Information Centres (IASLIC) in collaboration with ICSSR Southern Regional Centre, Hyderabad	Shri N.B. Inamdar, Coordinator Basic Workshop on Thesaurus in Information Retrieval, Osmania University Library, Hyderabad.
November 11-21, 1986	Refresher Course in Advanced grammar for College and university teachers of English	To emphasise on teachers the need for the study of English grammar at an advanced level.	CIEFL Regional Centre, Lucknow	Prof. V. D. Singh, Course Director & Officer-in-Charge, CIEFL Regional Centre, 2, Rana Pratap Marg, Lucknow.
November 14-17, 1986	National Seminar on Extension Education in Human Resource Development	Role of Extension Education in Human Resource Development - retrospect and prospect.	Indian Society of Extension Education (ISEE) in collaboration with the Andhra Pradesh Agricultural University, Hyderabad and the Indian Council of Agricultural Research, New Delhi.	Dr. S.N. Singh, Secretary ISEE, Division of Agricultural Extension, Indian Agricultural Research Institute, New Delhi-110012
November 15-17, 1986	Seminar on Problems, Aspects and Areas of Research in Music	To identify the latest trends in the research in music.	Department of Musicology and Aesthetics, Indira Kala Sangit Vishwavidyalaya, Khairagarh.	Dr. (Smt) Subhdra Chowdhary, Head, Department of Music, Indira Kala Sangit Vishwavidyalaya, Khairagarh.
November 25-28, 1986	National Seminar on Universe of knowledge, its development and structure—its relevance in the curriculum of MLISc course	To identify and develop necessary skills and expertise for teaching this subject in MLISc course.	Department of Library and Information Science, Osmania University, Hyderabad	Dr. A.A.N. Raju, Prof. and Head, Department of Library and Information Science, Osmania University, Hyderabad.
Nov. 23-Dec. 13, 1986	All India Short-Term Institute on Polymer Technology	To make an awareness of the recent developments in polymer science/technology to Chemistry teachers in universities and colleges.	Department of Polymer Science and Rubber Technology, Cochin University of Science and Technology, Cochin.	Prof. D. Joseph Francis, Director of the Short-term Institute, C/o Department of Polymer Science and Rubber Technology, Cochin University of Science and Technology, Cochin.
December 12-14, 1986	All India Seminar on Psychology, Sociology, Sports and Allied Sciences.	To acquaint the teachers and Professional personnel in Physical Education, Psychology and Sociology with the latest trends of research in Sports and Allied Sciences.	Degree College of Physical Education, Amravati.	Dr. V.D. Bapat, Organising Secretary, C/o Degree College of Physical Education, Amravati.

AP Set Up Commission of Higher Education

The Andhra Pradesh Government has set up a Commission of Higher Education. Expected to start functioning shortly, the Commission aims at restructuring of courses and reforms in the examination system. According to state Education Minister, Mr. G. Mudukrishnamma Naidu, the Commission would lay down norms for sanctioning of colleges and would conduct a common entrance test for engineering and postgraduate arts, commerce and science courses.

The Minister said that the establishment of the Commission would make far reaching changes in the education system in the State. When fully operational, he added, it might be asked to recommend amendments in University Acts for smooth functioning of the universities. Teachers' problems, refresher courses for in-service teachers, periodic evaluation of academic standards of different universities of the State are some of the other tasks which are proposed to be entrusted to the Commission.

National Seminar on Medicinal Plants

A national seminar, on 'Conservation and Ethnobotanical Aspects of Indigenous Medicinal plants' was recently organised by the Botany Department of Gurukula Kangri Vishwavidyalaya (GKV), Haridwar. Dr. Satyavrat Siddhantankar, Visitor of GKV presided.

Padmashri Dr. P.N. Mehra, Emeritus Professor, Botany Department, Panjab University, Chandigarh, delivered the inaugural lecture on 'Prospects of propagation and biosynthesis of active principles through tissue culture of threatened medicinal herbs'. He projected slides of his outstanding contributions and explained how

the rare medicinal plants can be multiplied by culturing cells or tissues on a bit of medium in a test tube, to meet the present challenge of scarcity of medicinal plants.

Speaking on the occasion, Shri R.C. Sharma, Vice-Chancellor of GKV, urged the scientists to take appropriate measures for the conservation of medicinal plants.

Dr. K.C. Verma, Principal of Govt. Ayurvedic College, Gurukula Kangri, who chaired the 4th technical session entitled "Plants and Ayurveda" pointed out that GKV can play a useful role to provide leadership to pursue advanced research in this direction. Dr. V.P. Upadhyaya exhibited the herbal cosmetics prepared by him.

"Sponsored jointly by the Council of Scientific and Industrial Research and the Indian Council of Agricultural Research, the seminar was attended by over 40 scientists from different universities and research organisations.

NSS Camp at Rahuri

The Mahatma Phule Agril. University, Rahuri, in collaboration with the State Department of Social Forestry, organised a 10-day camp on "Wasteland Development and Environmental Protection" under the National Service Scheme. The camp was inaugurated by Shri Patil, Collector of Ahmednagar while Dr. N.G. Perur, Vice-Chancellor of the university, presided over the valedictory function. Shri Narurkar, Director, Social Forestry, who delivered the valedictory address, said that the youth should use their talents and skill for taking message of social forestry to the people.

One hundred one college youths and 24 girls from various Universities from Maharashtra, Goa, Karnataka, and Gujarat, participated in this camp. More than 10,000 pits were dug and sapplings of Tamarind, Subabhoole, Eucalyptus and Ber were planted on

the wasteland of the University campus. Apart from the field work, lectures on Antidowry, Rural Health Programme, Rural Environment, Wild Life and Personality Development were arranged for the benefits of campers. In order to inculcate a spirit of understanding, fraternity and unity, cultural programmes were also organised.

Workshop on Education and Research

The Tamil Nadu Agricultural University (TNAU) conducted the Postgraduate Workshop on Education and Research at Coimbatore recently. The aim of the workshop was to improve the quality of the postgraduate education and research through course structures, linkages with other campuses and institutions and documentation of postgraduate work. Dr. V. Rajagopalan, Vice-Chancellor, TNAU inaugurated the workshop and Dr. V.D. Guruswamy Raja, Dean, Postgraduate Studies presided over the function. About 50 participants from all the campuses of TNAU attended the workshop.

Technofair '86

The Indian Institute of Technology, Bombay, organised a 5-day "Technofair '86" recently. The objective of the "Technofair" was to foster proper interaction among the students, faculty and industry. During this period panel discussions, talks, audio-visual presentations, workshops and seminars were organised. An exhibition designed by the IIT students was also organised on this occasion at which BARC displayed equipment like critical alarm system, coal ash monitor and photographs showing how radio-active waste was disposed.

UGC Assistance for Visva Bharati

Under its special assistance programme, the University Grants Commission (UGC) is reported to

have sanctioned a grant of Rs. 49 lakhs for the three institutes of Visva Bharati for the implementation of various expansion schemes. According to Vice-Chancellor of

the university, Dr. Nema Sadhan Bose, the Philosophy Department will get Rs. 19 lakh while the Sangeet Bhavan and Kala Bhavan will receive Rs. 15 lakh each.

participating in it. The tournament for West Zone is being conducted by the Shivaji University, Kolhapur from October 22 to 30, 1986 in which 22 teams are participating. The North Zone and South Zone Tournaments are now in progress at Panjab University Chandigarh and Kerala University, Trivandrum respectively. 26 teams are participating in each of these tournaments.

News from Agril. Varsities

Soil Science Society Meets at Coimbatore

The Fifty-first Annual Convention of the Indian Society of Soil Science was held at Tamil Nadu Agricultural University (TNAU), Coimbatore recently. Dr. V. Rajagopalan, Vice-Chancellor, TNAU, who delivered the inaugural address, appealed to the scientists to introduce a cost-effective technology for improving the soil fertility through an integrated management of soil nutrients and urged them to devote adequate attention to improve the productivity of dry land farming.

Dr. D. Raj, former Registrar, TNAU, presided over the convention and delivered the key-note address. He stressed the importance of identifying and classifying the basic principles so that the study of soil science will ultimately reduce itself to a few fundamental master equations.

The convention also decided to institute fellowships to honour the

outstanding soil scientists from this year. Over 250 delegates from all over the country attended the convention.

Foreign Experts Visit TNAU

Six Plant Protection Officers from Vietnam visited the Tamil Nadu Agricultural University (TNAU), Coimbatore recently and discussed with the scientists about various research, teaching and extension education programmes. Dr. Nguyen Huu Thuy, Vice-Director, Plant Protection Research Institute delivered a lecture on "Plant Protection Research and Development in Vietnam".

Dr. Indur Fagoonee, the Associate Professor and Head, Department of Entomology, School of Agriculture, University of Mauritius, visited the University campuses at Coimbatore and Madurai and discussed with plant protection scientists on various research and teaching programmes. He also delivered a lecture on "Mode of action of Neem in Insects."

(ii) Kabaddi (Women)

Inter-University Kabaddi Tournament (Women) for North East Zone will be hosted by Guru Nanak Dev University at Amritsar from Nov. 16 to 19, 1986. 14 universities are participating in this tournament. Poona University, Pune, will hold the South-West Zone tournament. Inter-Zonals will again be organised at Guru Nanak Dev University, Amritsar at which winners of the two zones will participate.

(iii) Volley Ball (Men)

Inter-University Volley Ball (Men) tournament is conducted on four zones basis. The North Zone tournament is being conducted by Meerut University, Meerut from 23rd October, 1986 in which 24 teams are participating, while Osmania University, Hyderabad, will host the South Zone tournament from 5th to 9th November, 1986 with 27 teams in the fray. The west zone and Inter-zonals will be held at Shivaji University, Kolhapur on 6-15 November, 1986 with 25 teams participating. Ranchi University, Ranchi, will host the East Zone tournament from 30th Oct.-7th Nov., 1986.

(iv) Hockey (Women)

Inter-University Hockey (Women) Tournaments for South-West Zone and North-East Zone are currently on at Banasthali Vidyapeeth (Oct. 18-24) and Ravishankar University,

Sport News

INTER-UNIVERSITY TOURNAMENTS

(i) Foot Ball

Inter-University Foot Ball Tournament for East Zone, including

the Inter-zonals, is being organised at the Burdwan University, Burdwan from October 23 to November 3, 1986. 29 teams are

Raipur (Oct. 20-28) respectively. 22 teams are participating. Inter-Zonals are also being held at Raipur.

(v) Badminton (Men & Women)

The North Zone Inter University Badminton Tournament will be conducted at Himachal Pradesh University, Shimla from November 8, 1986 at which 27 universities are expected to participate. The

Inter-Zonals will be held in December, 1986 at Bombay University along with West Zone.

(iv) Wrestling

The All India Inter-University Wrestling Tournament will be organised by Marathwada University, Aurangabad from Nov. 8, 1986 onwards. 50 teams from various parts of the country are likely to participate.

News from UGC

INSAT-1B Programme of UGC

Between 23rd and 31st October, 1986 the following schedule of telecast on higher education through INSAT-1B under the auspices of the University Grants Commission will be observed. The programme is of one hour duration every day from 12.45 p.m. to 1.45 p.m. (Repeated from 4 p.m. to 5 p.m.) and will be available on the TV Network throughout the country. For the viewers in Delhi and surrounding areas these programmes can be seen on the second channel.

23-10-86

- "Health : Development Perspective"
- "Bridges of Help : Dangerous Company"
- "Taste and Smell Perception of Insects"

24-10-86

- "Geothermal Energy"
- "Dewatering by Wellpoint System"
- "Renewable Source of Energy"

25-10-86

- "Marine Biology Off the Coast of Brittany"
- "Shrimp Farming"

26-10-86 (Sunday)

- "No Telecast"

27-10-86

- "Pesticides: The Environment"
- "Erosion Control"
- "Museum of Live Nature-II"

28-10-86

- "Research for Tomorrow"
- "Energy and Architecture"
- "Beauty in Stone"

29-10-86

- "Semi-conductors at our Service Transistor"
- "Fourier Transform and its Applications in Physics"
- "Precision and Optical Instrument"

30-10-86

- "Green Fire: Photosynthesis"
- "Test Tube Plants"
- "Butterfly: Life Cycle"

31-10-86

- "Comet-II"
- "HEAO—The New Universe"
- "Cosmic Chronicle."

UGC Promotes Computerisation

Under its scheme to provide computer to every university, the University Grants Commission (UGC) has covered 104 (three fourth) of the total of 150 universities in the country. In 38 universities, computer centres have already been set up, in the case of 40

universities approval has been given and installation is under process and 26 more universities have been identified for providing assistance to procure computer systems.

Besides the universities, some colleges, which have good reputation for maintaining standards in research are also being assisted with micro-processor/small systems under restructuring of courses programme. Such computers will also be provided to selected postgraduate and teachers training colleges. It is proposed to cover nearly 150 such colleges during the Seventh Five Year Plan period.

Thirtyeight universities which have already set up Computer Centres are: Aligarh, Andhra, Annamalai, BHU, Bombay, Calcutta, Delhi, Dibrugarh, Gauhati, Gujarat, Jadavpur, Jammu, JNU, Jodhpur, Karnataka, Kerala, Kurukshetra, Madras, M.S. University of Baroda, Mysore, Osmania, Punjab, Poona, Roorkee, Birla Institute of Technology, Utkal, I.I.Sc., Bangalore, Madurai Kamaraj, Anna, Hyderabad, JNTU, Sri Venkateswara, S.N.D.T., North Bengal, Kalyani, Manipur, Ranchi and Sardar Patel.

To meet the needs of the manpower, 43 universities are running different courses in Computer Science either at Master Level/Degree Level, Diploma Level or all the three. These Universities are: Roorkee, Aligarh, BHU, Delhi, JNU, Calcutta, Poona, M.S. University of Baroda, Andhra, Osmania, Anna, Hyderabad, Sardar Patel, Kurukshetra, Ranchi, Kerala, Utkal, Gauhati, Gujarat, Bhopal, Panjab, Bangalore, Jammu, Jodhpur, North Bengal, Madurai Kamaraj, Nagpur, S.N.D.T., Annamalai, Kashi Vidyapeeth, Banasthali Vidyapeeth, Sri Venkateswara, R.C.C. Calcutta, Allahabad, J.N.T.U. College of Engg., Anantpur, J.N.T.U. College of Engg., Kakinada, J.N.T.U. College of Engg., Hyderabad, Patna, Dayal Bagh Educational Institute, Devi Ahilaya Vishwavidyalaya, Cochin and Burdwan.

AIU Library & Documentation Services

One of the important functions of the Association of Indian Universities is to act as a clearing house of information on higher education in the country. Towards this end the AIU Library is engaged in collection building and developing instruments for the dissemination of research information. Over the years a valuable collection of books and documents on different aspects of higher education has been acquired.

The Library has also developed Bibliography of Doctoral Dissertations as an effective tool in the dissemination of research information. Retrospective bibliographies covering the period 1857-1970 and 1970-75 were the first to appear. Effective 1975, however, the bibliography is issued annually in two volumes. One volume deals with Natural and Applied Sciences while the other records doctoral degrees awarded in Social Sciences and the Humanities. In addition to the normal bibliographical details like the name of the Research Scholar, the title of the thesis, years of registration for and award of the degree, and the name of the University accepting the thesis for award of a doctoral degree, the bibliography also gives name and complete address of the supervising teacher and an availability note that seeks to inform whether a copy of the dissertation is available for consultation and use in the University Library/Department or Registrar's Office.

The columns 'Theses of the Month' and 'Research in Progress' are intended to cut out the time lag between the receipt of information and its inclusion in bibliography. Such Universities as are not sending us regular information in respect of Doctoral Theses accepted and research scholars enrolled are welcome to make use of these columns.

The Library is open from 9.30 a.m. to 5.30 p.m. Monday through Friday.

CURRENT DOCUMENTATION IN EDUCATION

A list of select articles culled from periodicals received in AIU Library during September, 1986.

EDUCATIONAL PHILOSOPHY

Ghanta, Ramesh. Art as unifying principle in education. *Prog. Edn* 61(1), 1986, 17-9, 24.

Karan Singh. Education and integrated growth. *Indian Int Centre Qrly* 13(2), 1986, 197-206.

McKelvie, Brenda D. The University's statement of goals: An idea whose time has arrived. *Br. Edn* 15(1-2), 1986, 151-63.

Simpson, William B. Revitalizing the role of values and objectives in institutions of higher education: Difficulties encountered and the possible contribution of external evaluation. *Br. Edn* 14(5), 1985, 535-51.

EDUCATIONAL PSYCHOLOGY

Fraser, Barry J. and Treagust, David F. Validity and use of an instrument for assessing classroom psychosocial environment in higher education. *Br. Edn* 15(1-2), 1986, 37-57.

Perleberg, Arye and Keinan, Giora. Sources of stress in academe: The Israeli case. *Br. Edn* 15(1-2), 1986, 73-88.

Smart, John C. and Pascarella, Ernest T. Self-concept development and educational degree attainment. *Br. Edn* 15(1-2), 1986, 3-15.

EDUCATIONAL SOCIOLOGY

Sheth, D.L. The problem of reservations: Economic backwardness or social injustice. *Indian J. Adult Edn* 47(6), 1986, 4-7, 12.

Steed, David. Education and disruptive pupils: The myth of the orderly school. *Univ. Q.* 39(2), 1985, 167-75.

EDUCATIONAL PLANNING

Conrad, Clifton F. and Pratt, Anne M. Designing for quality. *J. Hr. Edn* 56(6), 1985, 601-22.

EDUCATIONAL ADMINISTRATION

Claffey, Marian Allen and Hossler, Don. An integrated enrolment management system. *New Directions Hr. Edn* (53), 1986, 103-8.

Enaohwo, Okpako. Relevance and problems of the systems theory in educational administration. *New Frontiers Edn* 15(1), 1985, 1-12.

Fenwick, Keith. Changing roles in the Government of education. *British J. Ednl. Studies* 33(2), 1985, 135-47.

Hossler, Don and Kemmer, Frank. Enrolment management and its context. *New Directions Hr. Edn* (53), 1986, 5-14.

Knight, W. Hal and Holen, Michael C. Leadership and the perceived effectiveness of department chairpersons. *J. Hr. Edn* 56(6), 1985, 677-90.

Krener, Hayon Lyu and Avitshazk, Tamar E. Roles of academic department chairpersons at the university level: Perceptions and satisfaction. *Br. Edn* 15(1-2), 1986, 105-12.

Larowe, Charles P. Reflections of a faculty grievance officer. *Academe* 72(3), 1986, 16-9.

McKenna, James B. University reform in Spain: New structures for autonomy and accountability. *Comp. Edn. Rev.* 29(4), 1985, 460-70.

Moses, Ingrid. Promotion of academic staff: Reward and incentive. *Br. Edn* 15(1-2), 1986, 135-49.

TEACHERS AND TEACHING

Ellis, Lee and Mathis, Dan. College student learning from televised versus conventional classroom lectures: A controlled experiment. *Br. Edn* 14(2), 1985, 165-73.

Yannicopoulos, A.V. The pedagogue in antiquity. *British J. Ednl. Studies* 33(2), 1985, 173-79.

EVALUATION

Lee, Jo Ann and others. The effects of mode of test administration on test performance. *Ednl. Prg. Measurement* 46(2), 1986, 467-74.

ECONOMICS OF EDUCATION

Little, Angela. From educating and employing to learning and working. *Prospects* 16(1), 1986, 11-31.

Markus, Thomas A. Universities and the market. *Univ. Q.* 39(1), 1984/5, 5-15.

Price, Geoffrey. Universities today : Between the corporate state and the market. *Univ. Q.* 39(1), 1984/5, 43-58.

THE PROBLEM of unemployment among the educated. *New Frontiers Edn.* 15(1), 1985, 104-8.

Paschopoulos, George. Returns to education : A further international update and implications. *J. Human Resources* 20(4), 1985, 583-604.

SCIENCE EDUCATION

Souchon, Christian. Some thoughts on the new approaches to science education. *Prospects* 15(4), 1985, 535-40.

PROFESSIONAL EDUCATION

Grubb, W. Norton. The convergence of educational systems and the role of vocationalism. *Comp. Edn. Rev.* 29(4), 1985, 526-48.

ADULT EDUCATION

Bynner, John. Collaborative schemes and the ethos of distance education : A study of Australian and New Zealand Universities. *Hr. Edn.* 14(5), 1985, 513-33.

Guri, Sarah. Equality and excellence in higher education : Is it possible? A case of Everyman's University Israel. *Hr. Edn.* 15(1-2), 1986, 59-71.

Shah, Anupama and Gupta, Sandhya. Effectiveness of visual aids : A comparative study. *Indian J. Adult Edn.* 47(6), 1986, 21-3.

Vata, Ajit Singh and Chander Prabha. Distance education in India : Concepts and realities. *Teachers Movement* 6(1), 1985, 25-30.

COMPARATIVE EDUCATION & COUNTRY STUDIES

Hawkins, John N. Higher education alternatives in China: The transition from revolutionary to postrevolutionary forms. *Comp. Edn. Rev.* 29(4), 1985, 425-39.

Levy, Daniel C. Latin America's private Universities : How successful are they? *Comp. Edn. Rev.* 29(4), 1985, 440-59.

MacClure, Stuart. Forty years on. *British J. Ednl Studies* 33(2), 1985, 117-34.

Mosha, H.J. The role of African universities in national developments : A critical analysis. *Hr. Edn.* 15(1-2), 1986, 113-34.

Ohta, Takashi. Problems and perspectives in Japanese education. *Comp. Edn.* 22(1), 1986, 27-30.

Saleh, Mahmoud Abdullah. Development of higher education in Saudi Arabia. *Hr. Edn.* 15(1-2), 1986, 17-23.

Selvaratnam, V. The higher education system in Malaysia: Metropolitan, cross-national, peripheral or national? *Hr. Edn.* 14(5), 1985, 477-96.

THESES OF THE MONTH

A List of Doctoral Theses Accepted by Indian Universities

BIOLOGICAL SCIENCES

Anthropology

1. Subramanyam, K.N. Consanguinity and inbreeding effects among *kshatriyas* of Chittoor District, Andhra Pradesh. Venkateswara.

Environmental Science

1. Mandhan, Kailash. Some aspects of the ecology of a nitrogen-fixing grass-bacterial association. JNU.

2. Ray, Soma. Dielectric dispersions and effects of microwave in biological media. JNU.

Microbiology

1. Grewal, Harmeet Singh. Studies on vinegar fermentation from fruits. PAU.

2. Kale, Subrao Chandrabhan. Microbiology of the anaerobic lagoons. Shivaji.

3. Krishan Lal. Saccharification of bagasse and ethanol fermentation. PAU.

Biochemistry

1. Chaudhary, Nimmi. Biochemical studies on Indian childhood cirrhosis. Meerut.

2. Dutta, Ananta Madhab. Study of the chemical nature and biochemical effects of *Therapsis nerifolia* Juss. Gauhati.

3. Ghosh, Namita. Selection of *Aspergillus niger* strains for improved production of humic acid. Calcutta.

4. Nandi, Runa. On the interaction of alkaloids with deoxyribonucleic acid. Calcutta.

5. Rao, Srinivasa. Influence of copper and bacitracin on the growth and nitrogen metabolism of *Neurospora crassa*. Osmania.

6. Ray, Prabir. Studies on infection by cholera phages. Calcutta.

7. Singh, Chandor Vir. Chemical composition of drinking water, kidney stones and goitre : A study of their interrelationship. Meerut.

8. Tekriwal, Suman. Studies on α -mannan (Yeast) hydrolysing enzyme from mushroom. Calcutta.

9. Tyagi, Poonam. Serum lipid profile in diabetes mellitus with special reference to vascular complication. Meerut.

Marine Biology

1. Ebenezer, A. Silas. Studies on the ecology and productivity of saline lagoon. Cochin.

2. Suseelan, C. Studies on the deepsea prawns off South West Coast of India. Cochin.

Botany

1. Aruna Lakshmi, Velpuri. Morphological studies in capraceae. Andhra.

2. Aruna Reddy, T. Genetic and tissue culture studies on certain induced short culm, mutants of rice cultivar 'Tellaahams'. Osmania.

3. Audholia, Surabhi. Effect of cyanophage LPP-I infection on the metabolic processes of *Plactonema* and *Phormidium*. Durgawati.

4. Chakraborti, Mahua. Biochemical and cytogenetical studies on the effect of certain environmental chemicals and also of irradiation on several seeds during the processes of germination. Calcutta.

5. Chatterjee, Aparna. Studies on the carbohydrate metabolism and respiratory activity of some pathogenic *Curvularia* species. Durgawati.

6. Chauhan, Ram Autar Singh. Effect of growth retardants and growth promoters on *Pisum sativum* L. Jiwaji.

7. Iyengar, S. Studies on the photo control of seedlings development in certain plants. Vikram.

8. Jonathan, Alka I. Studies on soil fungi of Jabalpur with special reference to fungistats and antibiosts. Durgawati.

9. Joseph, Esther Selvaraj. Ecophysiological studies in associative symbioses of diazotrophs and micorrhizas. Durgawati.

10. Katiyar, Rajendra Singh. Studies on the orchids of North-Eastern India : Ecophysiology of mycorrhizas. NEHU.

11. Mahendru, P.K. *Pollution potentials and residual toxicity of pesticides and their reversal antidotes.* Vikram.

12. Ranavat, K.K. Singh. *Studies on fungi associated with maize kernels with special reference to mycotoxins.* Vikram.

13. Raytalukdar, Anjana. *Effect of dimethoate and related systemic pesticides on cellular systems and their modification by environmental factors.* Calcutta.

14. Saha, Renuka. *Studies on the control of physiological deterioration of soybean seed.* Calcutta.

15. Sanjeev Kaur. *Effect of moisture stress and temperature on seed germination of some cultivars of wheat.* PAU.

16. Saryanarayan, P. *A contribution to the embryology and chemotaxonomy of *Stegnospermum* Benth, the genus *Incertae sedis*.* Kakatiya.

17. Sharma, Ram Sahodar. *Growth, development and yield of *Zea mays* L. in association with legumes as affected by nitrogen levels.* Durgawati.

18. Shringi, Om Prakash. *Flora of Jhalawar District, South East Rajasthan.* Rajasthan.

19. Shyam Sunder, K.L. *Natural growth and polysaccharide production in some abundant red algae (*Rhodophyta*) from South Eastern shores of India.* Madurai.

20. Sokhi, Gunwant. *Developmental and histochemical studies on *Turbellaria conoides* Kurzinger (Favales, Sargassaceae) from Port Okha.* Delhi.

21. Suprasanna, P. *Certain genetic biochemical investigations in anthocyanin biosynthesis and tissue culture studies in maize.* Omania.

Zoology

1. Bhattacharya, Meenakshi. *The problem of X inactivation in *Gryllotalpa fassor* (Soudner).* Delhi.

2. Goswami, Mrigendra Mohan. *Limnological investigations of a tectonic lake of Assam, India and their bearing on fish production.* Gauhati.

3. Gupta, Kalpana. *Physiological and haematological studies in heteropneustes fossils under the chemical stress of Zinc and metalil yellow.* Meerut.

4. Gupta, Saibal Sen. *Effects of benzene hexachloride on the cytophysiology of the liver of *Heteropneustes fossilis*.* Bloch. Gauhati.

5. Jaleen Begum, S. *Computation of tissue specific modulations in carbohydrate metabolism of freshwater teleost, *Tilapia mossambica* under ambient ammonia stress.* Venkateswara.

6. Jha, Ravinder Kumar. *Fertility regulation with the help of certain plant materials possessing contraception like activity in male albino rats: A histophysiological and biochemical approach with special reference to lipids and carbohydrate metabolism.* Rajasthan.

7. Kar, Dovashish. *Limnology and fisheries of lake Sone in the Cachar District of Assam, India.* Gauhati.

8. Mehta, Pragna Chandrakantibhai. *Neural and endocrine regulation of gluconeogenesis in the kidney of pigeon, *Columba livia*.* Baroda.

9. Mehta, Tanuja. *Studies on some piscine and avian trematodes.* Meerut.

10. Mishra, Niharika. *The effects of sewage with special reference to aquatic insects in the river Kshipra.* Vikram.

11. Pramodakumari, J. *Some studies on physiological adaptation to thermal acclimation of a terrestrial poikilotherm.* Venkateswara.

12. Salunkhe, Shailam Abhay Kumar. *Histological and histochemical studies on the Brunner's glands.* Shivaji.

13. Singh, Lakshman Ibungohal. *Studies on the systematic survey of Ichthyofauna of Manipur with some observations on the biology of *Acrossocheilus hexagorotopsis* McClell and from Tare stream, Manipur, India.* Calcutta.

14. Somasundaram, P. *Ecophysiological studies of some insects.* Madurai.

15. Varma, Govind Narayan. *Studies on valvular invertebrates of certain insects.* Meerut.

16. Wadhwa, Sandhya. *Toxicity of lithium and an azodye to *Channa punctata*: A histopathological, biochemical and histochemical study.* Meerut.

Medical Sciences

1. Irri, Marianna. *Changes in some neurotransmitter pathways in the hypothalamus of ageing rat brain and the effects of some drug used in geriatric therapy.* JNU.

2. Sastri, Bhutanabhotla Sarveswara. *New spectrophotometric methods for the determination of certain antimalarials.* Andhra.

3. Sivaji, Yarlagadda. *Effect of disinfectants on bacterial resistance.* Delhi.

Agriculture

1. Bangarwa, Anand Singh. *Effect of levels and scheduling of nitrogen on the growth, yield and nutrient uptake of winter maize, *Zea mays*, L. under different plant densities.* HAU.

2. Dharendra Singh. *Studies on genetic behaviour of physiological parameters and their relationship with yield in Mung bean, *Vigna radiata* (L.) Wilczek.* Meerut.

3. Guleria, Dalip Singh. *Studies on *Agaricus bisporus* (Quel.) Sacc.* YS Parmar.

4. Kharub, Wazir Singh. *Bionomics and control of citrus leaf miner phyllocnistis citrella Stainton (Lepidoptera: Phyllocnistidae).* HAU.

5. Koti Reddy, V.R. *Chromosome constitution and induced mutations in rice (*Oryza sativa* L.).* Meerut.

6. Narwal, Ram Phal. *Effect of heavy metals (Cd and Ni) in soil plant system.* HAU.

7. Pushpangadan, K. *Effect of continuous NPK fertilization on the growth and yield behaviour of coconut with special reference to potash nutrition and its interrelation with other mineral nutrients.* Kerala, Agri.

8. Sangar, Ram Bahadur Singh. *Studies on the distribution of potato viruses X and Y in potatoes.* HP.

9. Sethi, Bhal Chand. *Dynamics of potassium in some *Haryana* soils.* HAU.

10. Singh, Indra Pal. *Gene action and phenotypic stability in chickpea, *Cicer arietinum* L.* Meerut.

11. Swadesh Pal. *Genetic divergence and genetics of some yield and quality characters in Solanum khasianum Clarke.* Meerut.

12. Thakuria, Kumudswar. *Effect of planting geometry and nitrogen management in natural grass land introduced with *Setaria apiculata* cv. Kozungulu on herbage yield and quality.* HP Krishi.

13. Vijendra Singh. *Studies on correlation, phenotypic stability, genetics of yield and wilt (*Fusarium oxysporum* F.Sp. Ciceri) resistance in chickpea.* Meerut.

14. Yadav, Lal Mani. *Studies on the effect of nitrogen and phosphorus on the growth and yield in new strains of pea. *Pisum sativum* L.* YS Parmar.

15. Zora Singh. *Biochemical aspects and control of mango malformation.* PAU.

Veterinary Sciences

1. Peshin, Fredhman Krishan. *Studies on the management of cardiopulmonary dysfunction due to thiopentone anaesthesia, in the bovine.* HAU.

2. Verma, Shoo Prasad. *Pharmacological studies on certain aspects of autonomic control of oesophagus, crop and proventriculus of chicken.* HAU.

3. Yadav, Khushi Ram. *Utilisation of farm animal organic wastes by ruminants.* HAU.

CLASSIFIED ADVERTISEMENTS

DR. YASHWANT SINGH PARMAR UNIVERSITY OF HORTICULTURE AND FORESTRY, SOLAN

"Recruitment Branch".

No. UHF, 2-23/86 (Rectt.)

"Corrigendum"

In advertisement No. 4/86 appearing in University News on 8-9-1986 the words "Agriculture, Horticulture and Animal Husbandry" appearing in the qualification for the post of Director of Extension Education may be substituted by "Horticulture, Forestry and allied applied Sciences" and the words "agricultural practices" be substituted by "horticultural and silvicultural practices."

The last date for receipt of applications for the post of Director of Extension Education have been extended to 31st October, 1986. Those who have already applied for this post in response to above referred advertisement need not apply again.

REGISTRAR

JAMIA MILLIA ISLAMIA

Jamia Nagar, New Delhi-110025

Advt. No. 7/1986-87

Dated : 14.10.1986

Applications on the prescribed form which can be had from the Registrar's Office on any working day between 10.00 a.m. and 12.00 noon or by sending a self-addressed and stamped (50 paise) envelope of 10x23 cms. are invited alongwith crossed Indian Postal Order or Bank Draft of Rs. 7/- (Rs. 2/- for SC/ST candidates) for the following posts so as to reach the Registrar by 1.00 p.m. on 21-11-1986. Ability to teach in Hindustani, particularly Urdu is a desirable qualification for teaching post and adequate knowledge of Urdu and Hindi is essential for non-teaching post.

D.A., C.C.A., H.R.A., P.F., Gratuity, Pension and other benefits will be given as per Jamia rules (corresponding to central universities).

Relaxation in any of the qualifications

may be made on the recommendation of the Selection Committee in exceptional cases.

1. One Professor in Mathematics (Rs. 1500-2500).

An eminent scholar with published work of high quality and actively engaged in research. About ten years' experience of teaching and/or research. Experience of guiding research at doctoral level.

OR

An outstanding scholar with established reputation who has made significant contribution to knowledge.

Specialisation in Computer Science (Software) is desirable.

2. One Registrar (Rs. 1500-2500) Essential

1. A good Master's Degree of a recognised University.

2. At least 15 years experience of teaching, research or administration.

3. Knowledge of Urdu.

M.N. Menai
REGISTRAR

INDIAN SCHOOL OF MINES

DHANBAD-826004

Advt. No. 45

Dated : 29.9.1986

Research Personnel

As below are required at Indian School of Mines, Dhanbad (which is deemed to be a university under the UGC Act) for the following projects:

1. Department : Applied Geology.

(i) No. 1/153 "Geological and Geochemical investigation for evaluating vertical extent of ore depositions in certain ore deposits."

Research Associate : One

Qualification : Ph.D. in Applied Geology with some experience in geochemistry or sulphides.

Duration : Three Years

(ii) No. 1/170 "Study of selected felsic and pegmatitic rocks and associated ore deposits".

Junior Research Fellow : One

Qualification : M.Sc./M.Sc. Tech. in Geology/Applied Geology.

Duration : Three Years

2. Department : Applied Science.

(i) No. 1/171 "Studies on Molecular vibrations of some solids."

Junior Research Fellow : One
Qualification : M.Sc. Physics (Spectroscopy)

Duration : Two Years.

(ii) No. 1/172 "Physics Chemical Studies of Coal."

Junior Research Fellow : One

Qualification : M.Sc., Physics

Duration : Two Years.

(iii) 1/125 "Environmental studies in and around Dhanbad."

Research Associate : One

Qualification : Ph.D. Physics.

Duration : Two Years.

3. Department : Electronics and Instrumentation

No. 1/173 "Development of Instrumentation for specific gravity control in heavy medium cyclone."

Junior Research Fellow : One

Qualification : M.Sc. in Pure or Applied Physics with electronics special or B.E. in Electronics or Electrical Engineering with minimum 60% marks in the aggregate.

Duration : Three Years.

4. Department : Fuel and Mineral Engineering.

Junior Research Fellow : One for each of the following projects.

(i) No. 1 116 "Effect of Coal Composition"

(ii) No. 1 155 "Modelling of coal crushing"

(iii) No. 1 157 "Modelling of Iron ore crushing"

(iv) No. 180 "Selective Flocculation"

(v) No. 1 114 "Filtration of Coal Slurries."

(vi) No. 612 "Modelling of Coal Flocculation"

Qualification for all : M.Sc. (Applied Chemistry, Applied Maths, Applied Geology, Mineral Beneficiation) or B.Tech. (Mining, Met., Chemical Engg. Mineral Engg.)

Duration for all the projects : Three Years.

5. Department : Mining Engineering.
No. 934 "Vargin Strata Temperature and Geo-thermic Gradient Measurement in Jharia-Coal fields."

Scheme-CMPDI

(i) Research Associate : One

Qualification : M.Tech. in Mining or B.Tech. in Mining with first class Manager's certificate or Ph.D. in Physics.

Or

B.Tech. in Mining with three years experience.

Duration : Two Years (Approx.)

(ii) Research Assistant : One

Qualification : B.Sc. 50% marks and one year experience, familiarity with Mining Areas and experience in laboratory works.

Duration : Two years (approx.)

6. Value of Fellowship/Associatehip Pay-Scale :

(a) Junior Research Fellowship (JRF) Rs. 800/- (Rupees Eight hundred) Those who have qualified in NET will be paid Rs. 1,000/- per month (consolidated) with a contingent grant of Rs. 5,000/- per annum. Junior Research Fellows may be promoted to Senior Research Fellows, on completion of two years of satisfactory research work.

(b) Research Associateship Rs. 1400/- or Rs. 1600/- or Rs. 1800/- or Rs. 2,000/- per month (Consolidated) depending upon qualification and experience with a contingent grant of Rs. 5,000/- per annum.

Research Assistant : Rs. 425-700/- Plus Dearness & other allowances admissible to ISM employees.

7.1 15% of the assignments are reserved for SC, 7% for ST and 1% for disabled candidates including blind and mute candidates, these posts would, however, be thrown open if suitable SC/ST disabled candidates are not available.

7.2 Appointment of any scholar is subject to termination at any time if his progress/conduct is found unsatisfactory.

7.3 Selected candidates, where admissible under rules, will be required to register for M.Tech degree (by research) or M.Phil/Ph.D. degrees, as the case may be of the School.

7.4 The candidates who are appointed for the assignments of JRFs will have to deposit a refundable caution money of Rs. 500/- (Rupees Five hundred) at the time of joining the post.

7.5 All the projects are ISM except where stated otherwise.

8. Age—Normally not more than 30 years in case of JRF/Research Assistant and 35 years in case of Research Associate.

9. In all cases, candidates must have obtained at least 60% marks in the qualifying examination, relaxable to 50% in case of SC/ST.

10. Interested candidates should send their applications on prescribed form which can be obtained from the office of the Asstt. Registrar by sending a self addressed and stamped (Re.1/-) envelope of 22cm X 10cm size along with a set of their publications and copies of testimonials (including marks-sheets in respect of the qualifying examinations) so as to reach Registrar on or before 10-11-1986.

11. Candidates who have appeared at the qualifying examination, and are awaiting declaration of results may also apply. However, if called for interview, they will have to produce at the time of interview, documentary evidence of having passed the examination with specified requirements.

12. The application should indicate clearly the assignment/Deptt. JRF/ Research Associate/Research Assistant as the case may be and the identification number, if any, and title of the project for which application is made.

13. Single second class Railway fare by the shortest route from the place of residence to Dhanbad and back shall be paid to candidates called for attending the interview.

S.P. Varma
REGISTRAR

OSMANIA UNIVERSITY

HYDERABAD-500 007

Advertisement No. 8/86 Dated : 1-10-1986.

Applications in the prescribed form together with the registration fee of Rs. 5/- payable through Demand Draft/IPO drawn in favour of the Registrar, O.U. are invited for the following posts in the University service so as to reach the undersigned in person or by post not later than 31-10-1986.

1. Professor of Linguistics —(One)
2. Reader in Linguistics —(One)
3. Reader in Zoology —(Three)
4. Reader in Law —(One)
5. Reader in Business Management (Kothagudem School of Mines, Kothagudem) —(One)
6. Lecturer in Business Management —(Two)
- do—
7. Lecturer in Linguistics —(Three)
8. Lecturer in Tamil (VI Plan) —(One)
9. Laboratory Assistant —(Department of Linguistics) —(Two)

Scale of Pay
1. Professor —Rs. 1500-2500
2. Reader —Rs. 1200-1900
3. Lecturer —Rs. 700-1600
4. Lab. Assistant (DA merged) —Rs. 700-1200

Age

1. Professor —Not above 50 Years.
2. Reader —Not above 40 Years.
3. Lecturer —Not above 35 Years.
4. Lab. Assistant —Not above 30 Years.
- (i) Age limit does not apply to the employees of this University.
- (ii) Relaxation to the extent of five years shall be granted to the candidates belonging to SCs, STs and BCs.

(iii) Relaxation to the extent of five years shall be granted to the teachers of affiliated colleges who have put in at least five years of service in any college affiliated to the Osmania University.

14% 4% and 25% reservations are made for the candidates belonging to SCs, STs, and BCs, respectively.

Application forms can be had from the Director, Department of Publications & Press, Osmania University, Hyderabad-500 007 on payment of Rs. 4.50 for the posts No. 1 to 8 and Rs. 2.25 for post No. 9 in person or by Demand Draft/IPO together with postal charges for ordinary or registered post made payable to the Director and by sending a self-addressed envelope of 24 X 9 cms.

Full particulars can be had at free of cost on request from the Director, Department of Publications & Press, O.U. by sending a self-addressed stamped envelope.

REGISTRAR

THE UNIVERSITY OF BURDWAN RAJBATI: BURDWAN

WEST BENGAL

Addendum to

Advertisement No. 11/85-86

Dated : 28th February, 1986.

In Item "B" : Posts of "Professor of Business Administration" — Specialisation should be "Personnel Management/Marketing Management/Operations Management"

In Item "C" : Post of "Reader in Business Administration" — Specialisation should be "Financial Management/Personnel Management"

The following requirements be also added for Item "B" and "C" :

Familiarity with the latest developments in the field of Business Administration. Applicants having no degree in Business Administration must have some exposure to such curriculum through Teaching, Research, Professional assignments or practical experience.

All other terms and conditions of the advertisement remaining unaltered. The last date for submission of application for abovementioned posts is extended upto 20th November, 1986.

P. Banerjee
REGISTRAR

GUJARAT AYURVED UNIVERSITY

ADMINISTRATIVE BHAVAN, HOSPITAL ROAD

POST BAG NO. 4, JAMNAGAR

Applications are invited for the following vacant posts in the University :

Sr. No.	Name of the Post	Pay Scale Rs.	No. of Post	Section
1.	Director of Botanical Garden	1500-2500	1	Main Office
2.	Professor 1-Basic Principles 1-Shalya Shalakya 1-Kaumarbhritya	1500-2500	3	P.G.T.
3.	Senior Physician (Siddha)	1100-1600	1	P.G.T.
4.	Pharmaceutical Chemist	1100-1600	1	P.G.T.
5.	Biochemist	1100-1600	1	P.G.T.
6.	Pharmacologist	1100-1600	1	P.G.T. Plan
7.	Pathologist	1100-1600	1	P.G.T.
8.	bhashashastri	900-1700	1	P.G.T.
9.	Darshanik	900-1500	1	P.G.T.
10.	R.M.O.	700-1300	1	P.G.T.
		650-1200	1	U.G.
11.	Lecturer-Sharir	650-1200	1	U.G.
12.	Literary Research Assistant	500-900	2	P.G.T.
13.	Clinical Registrar 1-Shalya Shalakya 1-Kaumarbhritya	500-900	2	1-P.G.T. 1-P.G.T. Plan P.G.T.
14.	Matron	475-750	1	P.G.T.
15.	Staff Nurse	380-560	16	12-P.G.T. 3-P.G.T. Plan 1-U.G.

Details of pay scale, qualifications, age and experience in the above posts should be submitted in the prescribed form which can be had by post from the Registrar, Gujarat Ayurved University, Jamnagar by sending a self addressed envelope 11" x 5" size duly stamped of 1.50 Rs. alongwith a request indicating the name of the post so as to reach on or before 7-11-86. The last date for receipt of complete application is 23-11-86. Only Indian National need apply.

The University reserves the right to fill up or not fill up the posts advertised and/or to call only selected candidates for interview)

R.M. Joshi
REGISTRAR

CSIR CENTRE FOR BIOCHEMICALS

Advertisement No. 2/86

Applications are invited on the prescribed form for the following posts :

(1) Scientist EI - 3 posts (Scale of Pay Rs. 1500-60-1800-100-2000.

Post No 1 (Immunology)

Essential Qualifications : Ph.D. degree in Biochemistry, Cell Biology, Molecular Biology, Biophysics or any other related branch of modern biology, with at least 12 years research experience after M.Sc.,

preferably in the field of immunology. Evidence of ability to carry out independent research of high quality as demonstrated by published work.

Desirable : Candidates should be well informed about recent developments in modern biology and should have adequate experience in hybridoma technology and preparation of monoclonal antibodies.

Job requirements : This is a senior level position. The candidate will have to establish and lead an active group of research workers in the field of immunology. He will be expected to have a commitment to application oriented research and will be

responsible for development of methods/products for use in immunodiagnosis and other modern areas in the emerging field of biotechnology.

Post No. 2 (Lipids)

Essential Qualifications : Ph.D. in Biochemistry, Cell Biology, Biophysics or any other related branch of modern biology with at least 12 years research experience after M.Sc., preferably in the field of Lipid Chemistry. Evidence of ability to carry out independent research as demonstrated by published work.

Desirable : Adequate experience in isolation/synthesis of lipids of a high degree of purity and their use in Liposome technology. The candidate should be well informed about recent developments in membrane biology.

Job requirements : The incumbent will be required to establish and lead a group working in isolation synthesis of pure lipids and their deployment in modern techniques using liposomes etc. He is expected to have a firm commitment for application oriented research.

Post No. 3 (Microbiology)

Essential Qualifications : Ph.D. in Microbiology or Biochemistry with at least 12 years research experience after M.Sc. in the field of Microbiology. Evidence of ability to carry out independent research as demonstrated by published work.

Desirable : Adequate experience in strain maintenance and their improvement, microbial taxonomy, and modern techniques in genetic engineering in developing hyperproducers. Candidates should also have some experience in fermentation techniques.

Job requirements : The candidates will have to establish and lead a group which will provide support to other scientists in the Centre in all aspects concerning microbial strains and fermentations. He will be expected to have a commitment to application oriented research and be familiar with recent developments in modern biology and its application.

(2) Scientist B - Six posts (Scale of pay Rs. 700-40-900-EB-40-1100-50-1300)

Posts 1 to 5 (2 posts reserved for SC and one for ST). In the event of non-availability of SC/ST candidates, the posts will be filled up by General candidates.

Essential Qualifications : First class M.Sc./Ph.D. in Biochemistry/Life Sciences.

Desirable : Three years experience in tissue culture/Immunology/Preparative Bio-

chemistry. The candidates should be aware of modern advancements in biology and be conversant with techniques used in biotechnology, especially those concerning their use in preparative biochemistry.

Job requirements : The candidates will work as members of a team and provide support to other scientists.

Post No. 6

Essential Qualifications : First class M.Sc. in Chemistry/Mathematics/Computer Science.

Desirable : Formal training with two years experience in programming for office administration / accounts / sales/inventory control etc.

Job requirements : The candidate will be expected to help in implementing computerised methods for office administration, accounts, sales inventory control and maintenance of records.

(3) **Jr. Sales & Distribution Assistant :** One post (reserved for SC candidate) (Scale of Pay Rs. 425-15-500-EB-15-560-20-700).

Qualifications & Experience : Degree in Science with 3 years sales experience in an establishment dealing in scientific items. Preference will be given to candidates familiar with office procedure/electronic data processing. Exposure to modern methods of office management, ability to correspond independently and supervise the work of junior staff will be desirable.

(4) **Jr. Technical Assistant :** 5 posts (1 post reserved for ST) (Scale of Pay Rs. 425-15-500-EB-15-560-20-700)

For Posts 1 to 4

Qualifications : B.Sc. with Chemistry/Biology/Life Sciences.

Job requirements : To help the scientists in preparation, storage, packing and analysis of enzymes, Biochemicals and of slaughter house bye-products. To work in R&D as member of a team and undertake other connected work in the lab. under instructions of the senior scientists.

For post no. 5

Qualifications : Degree in Science with formal training in electronic data processing.

Job requirements : To help in feeding and retrieval of data using computers for administration, accounts, sales etc.

(5) **Technician Grade VIII-1 post** (reserved for SC) (Scale of Pay : Rs. 425-15-500-EB-15-560-20-700).

Qualifications : ITI Trade Certificate in Mechanical Engineering with about 15 years experience in the line.

Job requirements : Maintenance and repair of instruments, equipment, pumps, air compressors, vacuum pumps, fabrication of parts etc. and other related duties as may be assigned from time to time.

(6) **Jr. Engineer :** 2 posts (1 each for Civil & Electrical) (Scale of Pay Rs. 425-15-500-EB-15-560-20-700)

Qualifications : 3 years diploma in Civil Electrical Engineering or equivalent. Preference will be given to candidates with experience in the line.

Job requirements : To supervise Civil/Electrical works and maintenance work of the Centre.

(7) **Purchase Assistant (Gr.V)** (Scale of pay Rs. 425-15-500-EB-15-560-20-700). -One Post - Age : not exceeding 28 years.

Qualifications : University degree preferably in science or three years Diploma in Engineering.

Experience : At least two years experience in handling imports and local purchases from Indian manufacturers and dealers. Preference will be given to the candidates having knowledge and experience in (i) import procedure (ii) clearance of consignments through post, railways, Road, Shipping and Air Cargo etc. (iii) Dealing with claims against carriers and underwriters for loss in transit etc.

The above posts are temporary and likely to continue and carry usual allowances admissible under the Central Govt. Rules as applicable to Council employees. Appointment to the posts of Scientists ET and B will be on contract for a period of 6 years (including the period of probation of two years) in the first instance.

The number of vacancies mentioned against each category is provisional and may vary at the time of selection. If more vacancies with identical job requirements become available, these can also be filled

from among the candidates who might apply for the above posts.

Application forms can be obtained (free of cost) from the Administrative Officer, CSIR Centre for Biochemicals, V.P. Chest Institute Building, Guru Teg Bahadur Marg, Delhi-7, upto 17-11-86. Separate application should be submitted for each post. No. of advertisement, name of the post applied for and full address in block letters must be indicated at the top of the request for form and sent together with a self-addressed envelope of 22cm x 10cm. size, affixed with 5 stamps worth Rs. 0.90p. for obtaining the application form.

Complete application in the prescribed form separately for each post, together with non-refundable application fee of Rs. 8 - (Rs. 2 - in the case of SC ST) in the form of crossed IPO drawn in favour of the Scientist-in-Charge, CSIR Centre for Biochemicals, Delhi should reach this office not later than 5-12-86. Applications must be supported by attested copies of certificates/testimonials relating to educational qualifications, date of birth, experience and original community certificate in respect of SC ST candidates, from the appropriate authority.

A lower standard of suitability consistent with efficiency will be applied respect of SC ST candidates. Since it is not possible to call all the candidates for interview, the applications will be short-listed for the purpose and the decision of a duly constituted screening committee will be final in this regard. Applicants called for interview will be paid single second class rail fare to and from the actual place of undertaking the journey or from the normal place of residence whichever is nearer to Delhi Railway Station, on the production of relevant documents of travel. Applications from employees working in Govt. Departments, Public Sector Organisations and Govt. funded research agencies will be considered only if forwarded through proper channel. Incomplete applications in any respect and those received after due date are liable to be rejected. Services of incumbents will be transferable anywhere in India.

Canvassing in any form and/or bringing in any influence, political or otherwise, will be treated as a disqualification.

INTERIM ENQUIRIES WILL NOT BE ENTERTAINED.